

## Handout #2: Bain's Theory of Belief and the Origins of Pragmatism

### 1. How "Pragmatism" Was Introduced into Academic Philosophy

#### A. James on Peirce

Years ago this direction was given to me by an American philosopher whose home is in the East, and whose published works, few as they are and scattered in periodicals, are no fit expression of his powers. I refer to Mr. Charles S. Peirce, with whose very existence as a philosopher I dare say many of you are unacquainted. He is one of the most original of contemporary thinkers; and the principle of practicalism—or pragmatism, as he called it, when I first heard him enunciate it at Cambridge in the early '70s—is the clue or compass by following which I find myself more and more confirmed in believing we may keep our feet upon the proper trail. (1898, 290)

#### B. Peirce on the Use of Bain on Belief by Green which led him to Introduce "Pragmatism" into the Discussion of the Metaphysical Club:

Nicholas St. John Green was one of the most interested fellows, a skillful lawyer and a learned one, a disciple of Jeremy Bentham. His extraordinary power of disrobing warm and breathing truth of the draperies of long worn formulas, was what attracted attention to him everywhere. In particular, he often urged the importance of applying Bain's definition of belief, as 'that upon which a man is prepared to act.' From this definition, pragmatism is scarce more than a corollary; so that I am disposed to think of him [i.e. Green] as the grandfather of pragmatism. (Hursthorne and Weiss 1934, vol. 5, para 1)<sup>1</sup>

### Chronology of Events Surrounding the Genesis of Pragmatism:

**1855: Bain *The Senses and the Intellect*, 1<sup>st</sup> Edition**

**1859: Bain *The Emotions and the Will*, 1<sup>st</sup> Edition (contains his chapter on belief as he characterizes belief as a state of will)**

**1859: Darwin's *Origin of Species* 1<sup>st</sup> Edition  
(For context: 1861-65 US Civil War)**

**1870: Peirce reviews Bain's *Logic (1870)* for *The Nation*, which contains a truncated statement and application of the theory of belief.**

**1872: Bain's chapter on Belief republished in *Mental Science* (text used by James and Peirce when lecturing for the next decade; James' lectures eventually establish his reputation as the greatest philosopher of his day when he publishes them as *The Principles of Psychology*)**

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<sup>1</sup> Peirce gave a similar account in an undated letter to the editor of the *Sun*. "Green was especially impressed with the doctrines of Bain, and impressed the rest of us with them; and finally the writer of this paper brought forward what we called the principle of pragmatism" (Weiner 1946, 223).

**1872-80: Meetings of the Metaphysical Club:** William James, Oliver Wendell Holmes, John Fiske, Joseph Warner, Chauncey Wright, Francis Ellingwood Abbot

**1875: Bain 3<sup>rd</sup> Edition of Senses and Intellect, 3<sup>rd</sup> Edition**

**1877-8:** Publication of Peirce, “Fixation of Belief” and “How to Make our Ideas Clear”

**1890:** Publication of James, *The Principles of Psychology*, Two Volumes

**1896:** Dewey “The Reflex Arc Concept in Psychology”

**1898:** James delivers “Philosophical Conceptions and Practical Results” in which he introduces the term “pragmatism” into published academic discourse. The talk was published in the Berkeley Chronicle (and Bain mentions his interaction with a Berkeley student) but the talk may have been planned for Irvine as it was arranged by George Howison, who was a founding member of the Irvine department. I would love to have this part of the story ironed out.

**1904-6:** Dewey, who wrote a now-lost dissertation entitled “The Psychology of Kant,” joins the University of Chicago faculty and moves away from Kantian doctrines to embrace what he called “Rational Empiricism.” Dewey publishes his work from this period as “Thought and Its Subject-Matter” (1903). James reviews Dewey’s work approvingly and associates Dewey’s philosophy with what James has been calling “pragmatism” for at least 6 years at this point.<sup>2</sup>

**1906-7:** James gives lectures at Harvard (1906) and Columbia (1907) that are published as *Pragmatism: A New Name for Some Old Ways of Thinking* trying to clarify pragmatism as a philosophy against what he takes to be the many misunderstandings of its critics.

**1907 and on:** Pragmatism and attempts to define and evaluate the philosophy are a central concern of philosophers. Moore and Russell reject it but Wittgenstein acknowledges the insights of pragmatism in his mature work (e.g. *On Certainty*). Carnap, Goodman and Quine all accept various theses they describe as pragmatic and then we get the varying neo-pragmatisms of Rorty and Putnam.

Conjoining the memories of James and Peirce as reported in (A) and (B) we get the historical hypothesis that “pragmatism” was initially used to denote a view on several philosophical matters (matters not yet settled to the satisfaction of “men of science”), a view which resulted from taking Bain’s definition of belief as an “axiom” in the course of discussion. Green kept using Bain’s theory of belief to defend or attack various proposals being made in the course of the group’s debates. Peirce is supposed to have defined the philosophical viewpoint emerging from Green’s use of the doctrine as a kind of “pragmatism” or “practicalism.”

**My further aims in the paper:** To explain Bain’s theory of belief and then use it to define Pragmatism in terms of Bain’s definition and the corollaries I’ve extracted from Peirce’s essays and James’ utilization of them in his Berkeley lecture.

**Questions for Intellectual Historians:** (1) Are recollections (A) and (B) accurate? (2) Is it useful, from the perspective of an intellectual historian seeking to explain trends in thought, to define “pragmatism” in this way?

**Questions for Philosophers:** “Pragmatism” now has so many different meanings. Ought we to define “pragmatism” for the purposes of academic discourse, so that it conforms to this initial

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<sup>2</sup> In a review of James’ *Pragmatism: A New Name for Some Old Ways of Thinking*, Charles m. Bakewell, writes of “James’ practice of continually referring to pragmatic teachings, under the caption “the Schiller-Dewey view” *Philosophical Review*, 16, 6 (November 1907), pp. 624-34.

conception when we are debating the nature of belief and issues for which the adoption of a conception of belief has important consequences?

I argue for an affirmative answer to this last question in Zimmerman, *Belief: a Pragmatic Picture* (2018). Bain's conception integrates well with contemporary science and is preferable for similarly consilient accounts on pragmatic grounds: i.e. it's the best way to structure social interactions, including legal interaction.

## 2. Bain's Theory of Belief

### The Role of Intellect

The state of mind called Belief, Expectation, Confidence, Trust, Assurance, Conviction, involves obviously our intellect, or ideas: we must know or conceive the fact that we believe in. (Bain 1875, 505)

It will be readily admitted that the state of mind called Belief is, in many cases, a concomitant of our activity. But I mean to go farther than this, and to affirm that belief had no meaning, except in reference to our actions; the essence, or import of it is such as to place it under the region of will. We shall see that an intellectual notion, or conception, is likewise indispensable to the act of believing, but no mere conception that does not directly or indirectly implicate our voluntary exertions, can ever amount to the state in question. (Bain, 1859, 568)

These initial statements already establish a definition of "belief" as: (i) a mental representation (perception, memory, expectation, evaluation, plan, notion, conception, idea, etc.), that is (ii) directly or indirectly implicated in our "voluntary exertions."

**Discussion:** There is a contemporary debate over mental representation and their role in psychology and our best theory of mind. Some take "radical enactivism" as a way of denying representations and link this to pragmatism.<sup>3</sup> But if we take Bain's theory as the axiom of pragmatism we are left with something closer to what Francis Egan (forthcoming) is now calling "Content Pragmatism" and Bain never rejects mental representations.<sup>4</sup>

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<sup>3</sup> See [Menary, R. \(2016\). Pragmatism and the pragmatic turn in cognitive science. In Karl Friston, Andreas Andreas & Danika Kragic \(eds.\), \*Pragmatism and the Pragmatic Turn in Cognitive Science\*. Cambridge MA: M.I.T. Press. pp. 219-236.](#)

<sup>4</sup> [Egan, F. \(2014\). How to think about mental content. \*Philosophical Studies\*, 170\(1\), 115–135.](#) Egan, F. (forthcoming). A Deflationary Account of Mental Representation. In Joulia Smortchkova, Krzysztof Dolega & Tobias Schlicht (eds.), *Mental Representations*. New York, USA: Oxford University Press.

Supposing with Bain that belief is a representation, what sort of content can it have? Bain begins at the beginning with an animal's perceptual awareness of its own movements through space, the objects with which it interacts in space, and the regularities it discerns between its movements and alterations in what it experiences as a result.

The infant, who has found the way to the mother's breast for food, and to her side for warmth, has made progress in the power of faith; and the same career goes on enlarging through the whole of life. Nothing can be set forth as belief that does not implicate in some way or other the order, arrangements, or sequences of the universe. (Bain, 1875, 506)

### **Its Dispositional Element**

We may act upon very imperfect knowledge, but that knowledge must be believed by us. We may have perfect knowledge without acting on it; much of our highest theoretic knowledge is seldom reduced to practice. The reason is, not want of faith, but want of opportunity. The preparedness to act is still the only test of this highest kind of knowledge. (ibid.)

### **Some but not all states of emotion constitute belief (or constitutively involve belief):**

The soldier in a campaign, cherishing and enjoying life, is unmoved by the probability of being soon cut off. If, in spite of the perils of the field, he still continues to act in every respect as if destined to a good old age, his conviction is purely a quality of his temperament, and will be much less strong at those moments when hunger and fatigue have depressed his frame, or when the sight of dying and dead men has made him tremble with awe....Under this hypothesis of no positive evidence, elevation of tone and belief of good to come, are the same fact. Where the acquired trust in evidence does not find its way in any degree, belief is the same thing as happy emotion. (1875, 524)

Belief is often accompanied by strong emotion, yet emotion, as such, does not amount to believing. Fictitious narratives may stir the mind more strongly than real; we disbelieve and yet tremble. (Bain 1875, 505)

We are often under strong conviction, while yet we are devoid of emotional excitement. The mathematician is as cool as he is convinced, when declaring his belief in a proposition of Euclid. (ibid.)

Note the conception of belief here as having a heterogeneous extension so that beliefs are certain expectations, memories, emotions, etc. Which ones? The ones that either inform voluntary action or are disposed to do so.

**The Rejection of Pansychism and Biologism (according to which belief is a feature of all organismic movement): Reflexive and other "Automatic" Behaviors are not Guided by or Manifestations of Belief According to Bain.**

In the primitive aspect of volition, which also continues to be exemplified through the whole of life, an action, once begun by spontaneous accident is maintained, when it sensibly alleviates a pain, or nurses a pleasure. Here there is no place for belief, any more than for deliberation, resolution, or desire. (1859, 568)

**The Rejection of Cartesianism: But belief is a common possession of non-human animals who are not accurately described as automata (as they are by Descartes and Huxley).**

The animal that makes a journey to a pool of water to relieve thirst believes that the object signaled by the visible appearance of water quenches thirst. (1875, 506)

The first edition generalizes:

The primordial form of belief is expectation of some contingent future about to follow on our action. (1859, 569)

In the case above, this would be an expectation that relief from thirst will follow drinking.

The obvious objection to Bain's developmental proposal is that the kind of expectation he describes as primordial is only possible if the animal has some memory of drinking, which memory would entail that she already believes that she drank water in the past. And mustn't she already know, and so believe, that she is in the process of pursuing water, if she is to be said to expect that pursuit to eventuate in the satisfaction of her thirst? An animal cannot expect to quench thirst from drinking in complete ignorance of drinking and having drunk.

Bain's answer returns us to what he regards as belief's adaptive function.

If all my actions were of this nature, the state of belief would never have been signaled as a phenomena of the human mind, just as no place would be given to deliberation. (1859, 569)

If I instinctively swallow water pressed to my thirsty lips, it is 'as if' I am acting from my desire for hydration and my belief that I can secure this end by drinking the liquid on hand. But this belief is only assigned to me 'by a fiction' because the movements under review are in fact unfolding in a manner that is not dependent on it. When our instincts and habits are well-adapted, we react in a relatively automatic fashion just as we would act were we exerting control over our responses and so acting from our knowledge of what we are doing and our beliefs about how these movements will help achieve our ends. But the mode of action is quite different in the two cases, and Bain takes pains to ensure that his definition of belief captures the difference.

### **3. Primitive credulity**

Belief is the default. He considers, as an objection, that early experiences provide the premises for an induction, which then fixes a belief in the regularity of nature: a general expectation that the future will resemble the past and the unobserved resemble what has been perceived to date. Bain rejects this account as untenable, and not because of traditional worries over the circularity of 'justifying' induction, which are often attributed to Hume. Instead, Bain insists, 'It would be more easy to uphold the very opposite: belief is frequently greatest when knowledge is least; as in the credulity of the ignorant' (1875, 514).

Experience and repetition would not originate what is implied in belief; would not give the disposition to act in a particular way with firm assurance or anticipation of a given consequence. But, there being a primordial tendency to follow out a lead, to accept whatever opening is presented, to do again what has once been successful, the effect of repetition would go to confirm that bent; the confirmation being unnecessary and unapparent, until there is an obstacle. (ibid.)

It is not proceeding from the right end, to say that the extended knowledge that enables us to substitute sure uniformities for hasty assumptions is the cause or essence of our believing disposition; it is rather the pruning operation that saves it from destructive checks. (1875, 516)<sup>5</sup>

**Discussion:** I'm skipping over how Bain's theory of belief anticipates the work of contemporary evolutionary psychology and the heuristics approach of Kahneman and Tversky. But note here how prescient Bain's rejection of induction and even Humean experience of regularity as essential to belief is. We believe first in whatever works for our purposes and only seek to support it when pressed. He even anticipates Goodman and the idea of reflective equilibrium.

#### **4. The role of Bain's theory of belief in the genesis of pragmatism**

Peirce did not begin his intellectual life as a pragmatist in the sense I am trying to define. Indeed, he wrote a scathing review of Bain's *Logic* for *The Nation*, in which the thirty-year-old Peirce makes fun of Bain's idea that modes of life and departments of inquiry embody beliefs and modes of inference or 'logics' of their own. But seven years later, after attempting to write a logic textbook of his own (1872-3), Peirce would embrace this same idea of 'logics' wholeheartedly, writing, in 'The Fixation of Belief' that 'Every chief step in science has been a lesson in logic.' In fact, the identification of more general policies of belief fixation and revision, recoverable from forms of social life, would form the central conceit of Peirce's essay, with its famous contrast between the methods of tenacity, authority, and science. The source of this conversion is not in doubt, as the same essay rehearses Bain's views of belief, doubt and inquiry as gospel.

Doubt is an uneasy and dissatisfied state from which we struggle to free ourselves and pass into the state of belief; while the latter is a calm and satisfactory state which we do not wish to avoid, or to change to a belief in anything else. On the contrary, we cling tenaciously, not merely to believing, but to believing just what we do believe. (Peirce 1877, 114)

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<sup>5</sup> See too 'When James Mill represented Belief as the offspring of 'inseparable association', he put the stress upon the wrong point. If two things have been incessantly conjoined in our experience, they are inseparably associated, and we believe that the one will be followed by the other; but the inseparable association follows the number of repetitions, the belief follows the absence of contradiction' (1875, 527). Here Bain anticipates one of the primary intuitions behind 'predictive coding' approaches to modeling perception. See, e.g., Clark 2015 and Williams 2018.

Logicality in regard to practical matters is the most useful quality an animal can possess, and might, therefore, result from the action of natural selection; but outside of these it is probably of more advantage to the animal to have his mind filled with pleasing and encouraging visions, independently of their truth; and thus, upon unpractical subjects, natural selection might occasion a fallacious tendency of thought. (Peirce 1877, 111)

Our beliefs guide our desires and shape our actions...The feeling of believing is a more or less sure indication of there being established in our nature some habit which will determine our actions. Doubt never has such an effect. (Peirce 1877, 113)

Peirce's contribution to the theory is clearest in 'How to Make Our Ideas Clear,' the essay James would name when introducing 'pragmatism' to the world. For after again rehearsing Bain's conceptions of belief, doubt, and inquiry, Peirce explicitly uses them to derive a semantic corollary. Since belief is an action-guiding representation, there can be no difference in belief without some potential difference in action. And since the significance of a statement or the meaning of a phrase can be identified with the beliefs it is used to communicate, there can be no difference in meaning between statements that are identical in their implications for action.

The essence of belief is the establishment of habit, and different beliefs are distinguished by the different modes of action to which they give rise. If beliefs do not differ in this respect, if they appease the same doubt by producing the same rule of action, then no mere differences in the manner of consciousness of them can make them different beliefs, any more than playing a tune in different keys is playing different tunes... Thus, we come down to what is tangible and practical, as the root of every real distinction of thought, no matter how subtle it may be; and there is no distinction of meaning so fine as to consist in anything but a possible difference in practice. (Peirce 1878, 135-7)

What then of James and the start of pragmatism as a movement? In the lecture's finale, James mentions Bain along with Hume and James Mill as the inspirations for pragmatism, and urges his audience to turn away from Kantian idealism to embrace the 'English [sic.] spirit in philosophy' as the 'saner, sounder and truer path' not only 'intellectually' but 'practically and morally' (1898, 309). But in the interim he turns to Peirce, and Peirce's use of 'pragmatism' at the Metaphysical Club in the early 1870s. **See quote A at the beginning of this handout.**

And what was pragmatism supposed to mean in Peirce's mouth? James' first formulation is, again, premised in a passage from Peirce's 'How to Make Our Ideas Clear.'

Peirce's principle, as we may call it, may be expressed in a variety of ways, all of them very simple. In the *Popular Science Monthly* for January, 1878, he introduces it as follows: The soul and meaning of thought, he says, can never be made to direct itself towards anything but the production of belief, belief being the demarcation which closes a musical phrase in the symphony of our intellectual life. Thought in movement has thus for its only possible motive the attainment of thought at rest. But when our thought about an object has found its rest in belief, then our action on the subject can firmly and safely begin. Beliefs, in short, are really rules for action; and the whole function of thinking is but one step in the production of habits of action. (ibid.)

What we read here is a direct explication of central components of Bain's theory of belief. As stated, it doesn't even include Peirce's use of that theory to establish limits on the individuation of meanings.

But James did innovate, by applying Bain's theory to the act of philosophizing itself.

An escaped Berkeley student said to me at Harvard the other day—he had never been in the philosophical department here—'Words, words, words, are all that you philosophers care for.' We philosophers think it all unjust; and yet, if the principle of pragmatism be true, it is a perfectly sound reproach unless the metaphysical alternatives under investigation can be shown to have alternative practical outcomes, however delicate and distant these may be. The common man and the scientist can discover no such outcomes. And if the metaphysician can discern none either, the common man and scientist certainly are in the right of it, as against him. His science is then but pompous trifling; and the endowment of a professorship for such a being would be something really absurd. (1898, 295)

## 6. Conclusions: An Attempt to Define "Pragmatism"

**Bain's Pragmatic Axiom:** A belief is a representation poised to guide an animal's voluntary actions or exertions.

We must add to this axiom, as an auxiliary hypothesis, a notion of meaning or semantic significance defined in terms of the expression of belief as we've defined it. We can then infer that statements only differ in meaning for us if they induce different beliefs in us. And that conclusion, when wedded to Bain's axiom, delivers Peirce's corollary.

**Peirce's Semantic Corollary:** Statements, theories and other representations only differ in meaning if their acceptance (i.e., belief in their contents) would introduce different voluntary habits or actional dispositions.

If we then ascend to the meta-level, and apply Bain's definition to philosophical questions, like the question of how to define belief and the rest of the mind, time, divinity, knowledge, justice, truth and the like, and we agree that these disputes are supposed to involve a difference in belief, we arrive at James's methodological corollary.

**James' Methodological Corollary:** A philosophical dispute is only real (i.e. not merely a matter of words) if changing sides would entail a change in behavior or introduce different actional dispositions.

**Discussion:** Let's evaluate this conception of pragmatism along several dimensions. Is it a good way of understanding the philosophy? Is the philosophy (so understood) an attractive one?